CONDITIONAL APPROVAL AND TECHNICAL REVIEW COMMENTS ON THE OPERABLE UNIT 1 DEWATERING EXCAVATION EVALUATION PROJECT (DEEP) TREATABILITY STUDY WORK PLAN

08/03/94

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## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

### **REGION 5**

77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

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REPLY TO THE ATTENTION OF:

HRE-8J

Mr. Jack R. Craig
United States Department of Energy
Feed Materials Production Center
P.O. Box 398705
Cincinnati, Ohio 45239-8705

RE: Conditional Approval of OU 1
DEEP Treatability Study Work Plan

Dear Mr. Craig:

The United States Environmental Protection Agency (U.S. EPA) has completed its review of the United States Department of Energy's (U.S. DOE) Operable Unit (OU) 1 Dewatering Excavation Evaluation Project (DEEP) Treatability Study Work Plan. The DEEP is designed to collect information to support remedial design/remedial action activities for OU 1, that will result in the removal of pit wastes using the safest, fastest, and most economical techniques.

Although the DEEP work plan contains much of the required information, deficiencies exist in documenting how the data will support the test objectives and how it will be interpreted.

Therefore, U.S. EPA hereby approves the DEEP work plan pending incorporation of the attached comments. U.S. DOE must incorporate the attached comments into the work plan and submit a revised document within thirty (30) days receipt of this letter.

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Please contact me at (312) 886-0992 if you have any questions.

Sincerely,

James A. Saric

Remedial Project Manager

Technical Enforcement Section #1

RCRA Enforcement Branch

Enclosures

cc: Tom Schneider, OEPA-SWDO

Pat Whitfield, U.S. DOE-HDO

Don Ofte, FERMCO Jim Thiesing, FERMCO

Paul Clay, FERMCO

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# TECHNICAL REVIEW COMMENTS ON THE OPERABLE UNIT 1 DEWATERING EXCAVATION EVALUATION PROJECT TREATABILITY STUDY WORK PLAN

#### GENERAL COMMENTS

Commenting Organization: U.S. EPA Commentor: Saric Section #: All Page #: NA Line #: NA

Original General Comment #: 1

Comment: The U.S. Department of Energy's (U.S. DOE) Dewatering Excavation Evaluation Project (DEEP) Treatability Study Work Plan (TSWP) does not include information required by the U.S. Environmental Protection Agency (U.S. EPA) guidance, "Guide for Conducting Treatability Studies under CERCLA." Specifically, significant deficiencies exist in the areas of (1) documenting how the data to be collected supports the test objectives; and (2) clearly presenting what data will be collected, how it will be collected, and how it will be interpreted. U.S. DOE should revise the text to provide this information, as well as to provide summary tables that correlate data collected with test objectives and example data collection log sheets.

Commenting Organization: U.S. EPA Commentor: Saric Section #: All Page #: NA Line #: NA

Original General Comment #: 2

Comment: The TSWP contains numerous incomplete or incorrect references to documents, tables, and figures; incomplete sentences; inappropriately repeated text; and other typographical errors. U.S. DOE should conduct a thorough quality assurance review of the document and should revise the text, tables, and figures as appropriate.

### SPECIFIC COMMENTS

Commenting Organization: U.S. EPA Commentor: Saric Section #: 2.2.1 Page #: 2-4 Line #: NA

Original Specific Comment #: 1

Comment: The information provided in this section should be presented in a table correlating the data to be collected to the data uses.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 2.2.2.2 Page #: 2-5 Line #: NA

Original Specific Comment #: 2

Comment: The text references a Sampling and Analysis Plan (SAP).

However, the SAP is not adequately referenced in the text

and is not included in the reference section. The text and
references should be revised to include the SAP.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 2.3.2 Page #: 2-9 Line #: NA

Original Specific Comment #: 3

Comment: "SCAPS Phasing" and "SCAPS Demonstration Project" are cited in the text, but are not defined. The text and the acronym section should both be revised to define the acronym, SCAPS.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 3.1.2.3 Page #: 3-3 Line #: NA Original Specific Comment #: 4

Comment: The text states that 15-cubic-yard sample boxes will be stored on the "best available hard surface." The text should be revised to identify specifically where the sample boxes will be stored.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 3.1.3 Page #: 3-4 Line #: NA Original Specific Comment #: 5

Comment: The title of this section indicates that data collection, analysis, interpretation, and reporting will be discussed in the section. Sections 3.1.3.1 and 3.1.3.2 vaguely discuss data collection and analysis, respectively. Data interpretation and reporting are not discussed. The text should be revised to (1) provide more information on how the data will be collected, and (2) discuss how data will be interpreted and reported.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 3.2 Page #: NA Line #: NA Original Specific Comment #: 6

Comment: This section discusses reslurrying tests that will be used to determine if reslurrying the pit waste is a viable removal technology. This removal method seems more laborintensive and generates more waste than the other removal methods proposed in the TSWP. Before conducting reslurrying tests, U.S. DOE should provide justification for conducting the test because it will involve adding water to the pits, dewatering the reslurried waste, and treating the slurry water. The text should therefore be revised to appropriately address this issue.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 4.2.5.2 Page #: 4-9 Line #: NA Original Specific Comment #: 7

Comment: The Phase 2, Stage 2 dewatering test discussion does not explain operation of the electro-osmosis system or the equipment involved. The text should be revised to include a discussion of the principles, equipment, and operation of the electro-osmosis system.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 4.3.1 Page #: 4-12 Line #: NA

Original Specific Comment #: 8

Comment: The text lists several reports and logs to be completed during Phase 3 dewatering tests. In order to better present what data will be collected and how it will be collected, an example of each report and log should be included in an appendix.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 4.3 Page #: NA Line #: NA

Original Specific Comment #: 9

Comment: The title of this section indicates that data collection, analysis, interpretation, and reporting will be discussed in the section. Sections 4.3.1 and 4.3.2 vaguely discuss data collection and analysis, respectively. Data interpretation and reporting are not discussed. The text should be revised to (1) provide more information on how the data will be collected, and (2) discuss how data will be interpreted and reported.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 4.5.1 Page #: 4-16 Line #: NA

Original Specific Comment #: 10

Comment: The text states that 105,000 gallons per day (gpd) of water will be generated during initial dewatering activities. The text also states that two 20,000-gallon tanks; a 5,000-gallon tank truck; and the 30,000 gpd Plant 8 treatment system will be used for storage and treatment during testing. Based on the combined storage and treatment capacity of 75,000 gpd, an excess of 30,000 gpd of water will exist. U.S. DOE should indicate how it will handle the excess 30,000 gpd of water generated during the initial 3 to 4 days of dewatering.

Commenting Organization: U.S. EPA Commentor: Saric Section #: 6.1 Page #: 6-2 Line #: NA Original Specific Comment #: 11

Comment: The text references a Project Specific Plan (PSP).

However, the PSP is not adequately referenced in the text
and is not included in the reference section. The text and
the references should be revised to include the PSP.